been described, but we question whether it would have been the better for it, possibly not so good. This work is to be regarded rather as an adjunct to a systematic treatise than of a complete or systematic treatise in itself. The author is a teacher, and as such appeals to methods. In Mosses with Hand-Lens and Microscope, *how* to study mosses to the best advantage is the object to be attained; and properly so, for usually after we learn "how," the results promptly follow. Considerable pains has been taken to blaze the way for an understanding of such difficult genera as *Orthotrichum*, *Bryum* and *Amblystegium*. The treatment of these must be considered a model of perspicuity. We welcome this work as being by far the best contribution yet made to American bryology. G. N. BEST

REVIEWS OF CURRENT LITERATURE.

The Mosses collected by the last French *Antarctic Expedition*, under the direction of Dr. Jean M. Charcot, extending from 1903 to 1905, have been elaborated by M. Jules Cardot, and are published under the auspices of the Minister of Public Instruction of France. In point of number of species this collection is not very important, only 18 species being reported by M. Cardot. One new species, *Brachythecium Turqueti* is illustrated. But, while the number of species is small, the light thrown by these collections made under such trying climatic conditions, upon the struggle of organisms through the antarctic cold is interesting. M. Cardot, through whose hands have passed all the bryological antarctic collections of recent years, in this report sums up the present status of our knowledge, showing that only 51 species of mosses are known from the Antarctic Regions, 24, or nearly half of which, are endemic. But of these, M. Cardot shows, several species are in truth polar representatives of species belonging outside the antarctic zone. And here he mentions *Dicranum Nordenskioldii* Card., as modified from *D. aciphyllum* Hook. f. et Wils.; *Polytrichum antarcticum* Card., from *P. piliferum* Schreb., and *Brachythecium antarcticum* Card., certain forms of which he points out approach closely to *B. georgico-glareosum* (C.M.) Paris. And possibly also *Bryum amblyolepis* Card. belongs here, since it may be considered a race, or subspecies of *B. argenteum* L. Yet all these plants, the author points out, show characters sufficiently important to entitle them to rank as distinct species. JOHN M. HOLZINGER.

P. S. The public press of Feb. 12, 1910, reports from Valparaiso, Chili, of the French Antarctic Expedition as again in the field under Charcot, that it has "reached lat. 70° S., long. 126° W., and discovered 120 miles of new land to the west and south of Alexander Island."

Mr. Cardot has also completed his report on the Mosses collected on the National Antarctic Expedition in the steamer Discovery. At the five stations established by the Discovery, seven species of mosses were collected, two of which are new: *Didymodon gelidus* Card., and *Brynm atgens* Card. These are described and figured in two plates. In the Bulletin de l'Herbier Boissier, of 1908, No. 2, M. Cardot describes a new dicranacious genus,

Campylopodiella, with one species, *C. tenella* Card., based on plants from Sikkim, Darjeeling, India, communicated by Dr. Levier, of Florence, Italy. The description is accompanied by a page of illustrations.

In the same publication, M. Cardot has an article on the genus *Leucobryum* in Japan, reducing the 12 species described from these islands to four, namely *Leucobryum scabrum*, *glaucum*, *Bowringii* and *neilgherrense*. Under this last species are according to the writer included *L. Torrici*, *lacteolum*, *brevicaule*, *galeatum*, *Japonicum*, *Wichurae* and *retractum*.

In a third article of this publication M. Cardot reports on a small collection of Mosses from New Caledonia made by Deplanche and Vicillard, which the writer found had not been taken account of in Bescherelle's Florule, nor in the more recent publications of Brotherus and Thériot. This collection included 26 species, four of which are new; *Dicranum perlongifolium*, *Macromitrium gracilipes*, *M. rufipilum* and *Trichosteleum vicillardi*. These are both figured and described.

In a fourth brief article M. Cardot reinstates, describes and figures *Dicranum Novae-Hollandiae* Hsch., which C. Müller, in consequence of a confusion of specimens, had reduced to a synonym of *Hypnum areum* Lam.

JOHN M. HOLZINGER.

Contributions to the Moss Flora of Norway. No. IV. by N. BRYHN.

This is an extract from "Nyt. Mag. fon Naturoid." B. 45, H. H. Kris. tiania, 1907, comprising pp. 113 to 130 incl. It enumerates 32 species of Hepaticae, and 121 species of Musci, including four of Sphagna. In a brief, charming introduction the author points out that Gunner knew only 70 species of mosses, and said that he believed that hardly a plant could be found in Norway which he had not seen.

"In the century after the time of Gunner the noted moss students, Hartman and Lindberg, enumerated about 600 species as belonging to the Flora of Norway.

"In more recent years several sons of the fatherland have scrutinized the status of mosses as never before, and have investigated their distribution. And up to the present time 1100 species of mosses are known to occur in Norway.

"This list likwise, which includes some rarer mosses, especially those observed in more recent years in various localities of the country, will increase this number."

In other words, all the Hepaticea, and Musci enumerated here are additions to the Moss Flora of Norway! This is of interest to American students because of the close kinship of the Arctic-American Moss-Flora with that of Norway. One new variety is described: *Bryum neodamense fragile* Bryhn. But the matter of most interest to all moss students is Dr. Bryhn's note under *Amblystegium juratzkanum* Schimp., embodying as it does the result of the author's careful study of this and the closely related species of *Amblystegium*. I here cannot do better than to quote his words in full.

"I have diligently examined numerous specimens of this species from various countries and stations, and have compared them with all those specimens of *Amblystegiam radicale* (P. B.) Mitt. (in sensu Limprichtii) which I possess, and likewise with specimens collected in various places in Europe; nevertheless to find a sufficiently pronounced difference has been impossible to me. The same conclusion has been reached by the noted bryologists, Schiffner and Moenkemeyer.

"I do not doubt but that the result will be the same if one should compare *Amblystegium virens* Haus. with *Amblystegium juratzkanum*."

This disposition of one of the most vexing groups of species, or rather of one of the most polymorphous species of pleurocarpous mosses, like the cleaving of the Gordian Knot, will be a great relief to many who have floundered here.

JOHM M. HOLZINGER.

Forarbejder til en Norsk Lovmosflora. Av I. Hagen. (Kgl. Norsk Videnskabers Selskabs Skrifteri; 1909, No. 5, and 1910, No. 1). Trondhjem, Norway, 1909 and 1910.

The first two parts of Dr. Hagen's Norwegian Moss-Flora have already been noticed in THE BRYOLOGIST for September, 1909. The present issues include the families Grimmiaceae Timmiaceae, Schistostegaceae, Hedwigiaceae, Splachnaceae, Oedipodiaceae, Leucodontaceae, Ceratodontaceae, Encalyptaceae, and Seligeriaceae.

The main portion of the text is in Norwegian, but all critical notes are in French, while the keys and synopses of new forms are in Latin. No new species are described, but several varieties are proposed as new, besides four new subgenera and one new genus. The latter, *Pseudephemerum* (Lindb,) Hagen is constituted for *Pleuridium axillare* Dicks. which is considered to be most closely allied to *Dicranella rufescens*. The family Ceratodontaceae is here extended to include the Norwegian species classified by Brotherus in the sub-family Ditricheae.

Of particular interest are the notes upon *Grimmia calvescens* Kindb. *G. apocarpa* Hedw., *Seligeria brevifolia* Lindb., *S. pusilla* Bry. Eur,, *S, paludosa* L., and the figure giving the relationships of the various species of Encalypta. Figures are given showing the branched male inflorescence of *Schistostega*, and the capsules of *Seligeria brevifolia*.

EDWARD B. CHAMBERLAIN.

Necrology.—Attention is called to the death of Nils Conrad Kindberg on August 23d, 1910, at Upsala, Sweden. He was 78 years old. From 1860 to 1901 he was a teacher, lecturer, etc., at Linköping, after which time he resided at Upsala as Emeritas Professor on a pension. The last 30 years of his life was devoted almost exclusively to North American bryology.

His valuable collection of mosses, containing about four thousand species, from numerous localities, especially North America, is for sale. For further information, as to price, etc., address Dr. H. W. Arnell, Upsala, Sweden.